**Current Affairs : 22 April 2023**

**WHAT IS WORLD EARTH DAY?**

**World Earth Day is celebrated across the world on April 22 every year.**



**About World Earth Day:**

* It is an **annual event celebrated on April 22** to **raise awareness about environmental issues** and promote global efforts to protect the Earth's natural resources.
* **History**:
* The first **World Earth Day was held on April 22, 1970,** in the United States.
* It was **organized by a group of environmental activists led by US Senator Gaylord Nelson**, who was concerned about the negative impact of industrialization and pollution on the environment.
* Since then, it **has become a global movement** that encourages individuals and communities to take action towards protecting our planet.
* The **Earth Day 2023 theme: " Invest In Our Planet**", is a continuation of the 2022 theme.

**What is Earth Hour?**

* It is a **global grassroots movement uniting people to take action on environmental issues** and protect the planet.
* It is **organized by World Wildlife Fund (WWF).**
* It was **started by WWF** and partners **as a symbolic lights-out event in Sydney in 2007.**
* It **takes place on the last Saturday of March every year**.
* “Earth Hour” **encourages people to switch off all lights for an hour, from 8:30 pm to 9:30 pm local time** to promote awareness of climate change challenges and energy conservation.
* This symbolic act, **known as the ‘lights off’ moment, unites people worldwide** in a show of support for the planet and serves as a reminder of the environmental issues facing us.

**COVID SET TO DELAY 2021 CENSUS BY AT LEAST 3 YEARS**

**Why in news?**

* India’s Census enumeration that was scheduled to take place in 2021 has been pushed to 2024-25 until further orders.
* The exercise, including extensive fieldwork, was postponed due to the outbreak of Covid-19 in 2020.

**Census in India**

* Population Census provides basic statistics on state of human resources, demography, culture and economic structure at local, regional and national level.
* Beginning in the year 1872, when the first census was conducted non-synchronously, the census enumeration exercise in India is carried out in every 10 years.
  + The first synchronous census was taken under British rule in 1881, by W.C. Plowden, Census Commissioner of India.
* The responsibility of conducting the decadal census rests with the Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs.

**Legal/Constitutional basis of Census**

* Population census is listed in **Union List (entry 69)** of Seventh Schedule in Indian Constitution.
* Census is conducted under the provisions of the **Census Act, 1948**.

**Process of census enumeration**

* The Census Operations in India have been carried out in two phases:
  + House listing and Housing Census and
  + Population Enumeration.
* The Population Enumeration follows the Housing Census within a gap of six to eight months.
* In Population Enumeration phase each person is enumerated and her/his individual particulars like Age, Marital status, Religion, mother tongue etc. are recorded

**Some of the features of upcoming census**

* The ensuing decadal Census of India will be the 16th in series and 8th after independence.
* In the history of Indian Census, for the first time, the Census data will be collected digitally i.e., on Mobile App in the ensuing census.
* Also, self-enumeration facility will be provided for the first time in the forthcoming Census.

**News Summary**

* In a letter sent to all states and Union Territories, the office of the Registrar General of India (RGI) has extended the deadline of freezing of administrative boundaries to June 30, 2023.
* The Census enumeration can begin only a few months after administrative boundaries are frozen.
* However, with the General Election scheduled early next year, the possibility of this exercise taking place this year stands ruled out.

**UN REPORTS “OFF THE CHARTS” MELTING OF GLACIERS**

**Why in news?**

* The UN's World Meteorological Organization said that the world's glaciers melted at dramatic speed last year and saving them is effectively a lost cause.

**What is the WMO?**

* The World Meteorological Organization (WMO) is an intergovernmental organisation with a **membership of 193** Member States and Territories.
* It originated from the **International Meteorological Organisation** (IMO - a NGO), the roots of which were planted at the 1873 Vienna International Meteorological Congress.
* Established by the ratification of the **WMO Convention in March 1950**, WMO became the **specialised agency of the UN**, responsible for promoting international cooperation on -
  + Meteorology (weather and climate),
  + Operational hydrology and
  + Related geophysical sciences.
* **The WMO's Strategic Plan includes -**
  + Disaster risk reduction,
  + The Global Framework for Climate Services (GFCS),
  + The WMO Integrated Global Observing System (WIGOS),
  + Aviation meteorological services,
  + Polar and high mountain regions,
  + Capacity development and Governance.
* The Secretariat, headquartered in **Geneva**, is headed by the Secretary-General and its supreme body is the**World Meteorological Congress**.
* WMO publishes - **Greenhouse Gas Bulletin, Status of Global Climate**, etc., reports

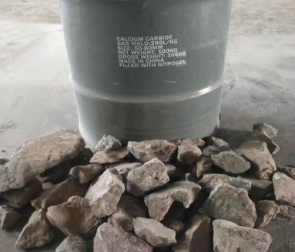
**News Summary: UN reports ‘off the charts’ melting of glaciers**

**Key highlights of the observations made by UN’s WMO**

* **Concentrations of greenhouse gases hit new peaks**
  + The last eight years have been the warmest ever recorded, while concentrations of greenhouse gases such as carbon dioxide hit new peaks.
  + The concentration of carbon dioxide (CO2) reached 415.7 parts per million globally or 149% of the pre-industrial (1750) level, while methane reached 262% and nitrous oxide hit 124%.
* **High temperatures in the oceans**
  + Record high temperatures were recorded in the oceans — where around 90% of the heat trapped on Earth by greenhouse gases ends up.
* **Rise in sea levels**
  + Sea levels are at a record high, having risen by an average of 4.62 millimetres per year between 2013 and 2022 — double the rate it was between 1993 and 2002.
* **Global mean temperature in 2022**
  + The global mean temperature in 2022 was 1.15 C above the 1850-1900 average.
  + Record global mean temperatures over the past eight years came despite the cooling impact of a drawn-out La Nina weather phenomenon that stretched over nearly half that period.
* **World’s reference glaciers saw thickness loss**
  + The world's reference glaciers saw an average thickness loss of more than 1.3 metres between October 2021 and October 2022 — a loss much larger than the average over the last decade.
    - Reference glaciers are those for which long-term observations exist.
  + The cumulative thickness loss since 1970 amounts to almost 30 metres.
    - The disappearance of the glaciers would limit freshwater supplies for humans and for agriculture, and also harm transport links if rivers become less navigable

**CALCIUM CARBIDE**

**Recently, the Food Safety and Standards Authority (FSSAI) of India (FSSAI) urged food commissioners of all states and Union Territories (UT) to take action against the unauthorised use of artificial fruit ripening agent calcium carbide.**



**About Calcium Carbide:**

* It is a compound with the chemical formula CaC2.
* It is also known as **‘masala’** which is used as a **fruit ripening agent.**
* It is manufactured by heating a **lime and carbon mixture** to 2000 to 2100°C (3632 to 3812°F) in an electric arc furnace.
* It has been **prohibited**as per the provision in the sub-regulation of Food Safety and Standards (Prohibition and Restriction on Sales) Regulation, 2011.
* It is used in **mining and metal industries** as well as in the production of acetylene gas.
* It is a highly reactive compound and releases acetylene gas which is used to artificially ripen fruits

**What is Artificial ripening?**

* Artificial ripening of fruits is done in a controlled manner to achieve the optimum level of ripening before time which would be then accepted by consumers
* It also allows a longer shelf life for these fruits.

**FOOD SAFETY AND COMPLIANCE SYSTEM (FOSCOS)**

**Recently, the Food Safety and Standards Authority of India (FSSAI) has undertaken to translate Food Safety and Compliance System (FOSCOS) into Hindi, followed by all the regional languages.**



**About Food Safety and Compliance System:**

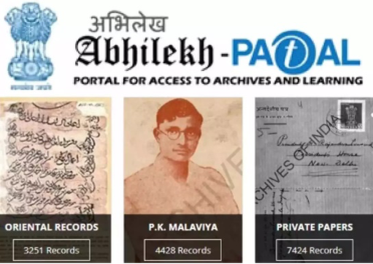
* It is an enhanced version of the Food Licensing and Registration System (FLRS) which was launched in 2012 for the issuance of **pan-India FSSAI Licenses and Registration.**
* It is a comprehensive system for **registration and licensing** for Food Business Operators (FBOs).
* It is a one-point stop for FBOs for their interface with the food safety regulator for all types of compliances.

**Key facts about the Food Safety and Standards Authority of India (FSSAI)**

* It is a **statutory body** established under the **Food Safety and Standards Act, 2006** (FSS Act).
* FSS Act, of 2006 consolidated various acts & orders that had earlier handled food-related issues in various Ministries and Departments.
* **Nodal ministry:**Ministry of Health & Family Welfare.
* **Some of the Initiatives of FSSAI**
* **Heart Attack Rewind:** It was launched for the elimination of industrially produced trans-fat in the food supply.
* It will support FSSAI‟s global target of eliminating trans-fat in India by the year 2022.
* **Eat Right India movement:**It is an initiative to transform the country’s food system to ensure safe, healthy and sustainable food for all Indians.

**WHAT IS ABHILEKH PATAL?**

**Recently, The Prime Minister of India praised “Abhilekh Patal” a portal with over 1 Crore Pages of Historical Records of the National Archives.**



**About Abhilekh Patal:**

* **What it is?** It is a **full-featured web portal** to access the **National Archives of India’s** reference media and its digitized collections through the Internet.
* Abhilekh is a Sanskrit term used in India **for records** since ancient times and **Patal**is a Sanskrit word meaning **a board, platform**, or surface.
* A combination of both these words has been adopted as an acronym for Portal for Access to Archives and Learning.

**Key facts about the National Archives of India**

* It was **established on 11 March 1891 at Calcutta** (Kolkata) as the Imperial Record Department, it is the biggest archival repository in South Asia.
* It is the **repository of the non-current records of the Government of India** and is holding them in trust for the use of record creators and general users.
* It has a vast corpus of records viz., public records, private papers, oriental records, cartographic records and microfilms, which constitute an invaluable source of information for scholars-administrators and users of archives.
* It is Located at the heart of **New Delhi**
* It has one Regional Office in Bhopal and three Records Centres at Bhubaneswar, Jaipur and Puducherry.
* **Nodal Ministry:** It is an Attached Office of the Ministry of Culture, Government of India.

**WHO ARE VAULT MANAGERS?**

**The Securities and Exchange Board of India (SEBI) recently came out with a procedure for vault managers to seek prior approval from the watchdog in case of a change in control.**



**About Vault Managers:**

* The vault manager is **regulated** **as a SEBI intermediary for providing vaulting services meant for gold deposited to create electronic gold receipts (EGRs).**
* **Obligations of the vault manager:** **Accepting deposits, storage, and safekeeping of gold**, **creation as well as withdrawal of EGR**, **grievance redressal**, and periodic reconciliation of physical gold with the records of the depository.
* **Registering as a Vault Manager:**
  + Any person intending to carry on the business as a vault manager **can make** **an application to SEBI for a grant of a certificate of registration.**
  + The **applicant shall be a body corporate incorporated in India** and shall have a **minimum net worth of Rs 50 crore.**
  + **Every certificate of registration granted will be valid unless it is suspended** or cancelled by SEBI.
* **Regulations**:
  + The vault managers are **required to have systems for recording all transactions in electronic form** pertaining to vaulting services.
  + They need to **maintain the documents to ensure that gold is traceable**; **details of storage, transfer and withdrawal of gold**; purity, quantity and weight of deposited gold; and creation and extinguishment of EGRs.
  + They need to **preserve these records**and documents**for a minimum period of five years**.
  + They need to **abide by the code of conduct specified by the regulator**.
  + The regulator has the **right to undertake an inspection** of the books of accounts, records, documents and deposits of gold of the vault manager.

**What are Electronic Gold Receipts (EGRs)?**

* EGRs are a **form of depository gold receipts that can be traded on stock exchanges.**
* EGR is an **electronic receipt issued by the Vault Manager against the gold deposited with them**.
* It can be **sold and bought in the same way stocks are sold and bought** from stock exchanges.
* **Creation of EGR:**
  + Any person desirous of creating EGRs will have to **place a request for the deposit of the gold with the registered vault manager**.
  + The **vault manager will ensure compliance with the gold standard**, weigh the gold bars and check necessary documentation at the time of deposit of gold.
  + The **vault manager**or any person authorised on this behalf will **ensure that the gold is deposited only through an accredited refinery** or a nominated agency.
  + Every **vault manager will have a common interface with the depository** for the creation and extinguishment of EGR.
  + Upon acceptance of the gold from the depositor, the **vault manager will create an EGR in the name of such depositor as a beneficial owner** by entering details **in the common interface.**
* **Withdrawal of Gold:**
  + The beneficial owner seeking to withdraw gold from the vault **will have to place a request with the depository**.
  + **The depository**, after satisfying the payment of charges due to the vault manager, **will intimate its approval for the withdrawal of gold to the concerned vault manager.**
  + Upon receipt of communication from the depository, the **vault manager will hand over the gold and extinguish the EGRs**.

**WHAT IS THE UNMANNED AERIAL VEHICLE (UAV) 'NAGASTRA'?**

**Solar Industries Nagpur recently bagged an order to supply the UAV 'Nagastra' to the Indian Army, beating competitors from Israel and Poland.**



**About Nagastra:**

* It is **India's first indigenous loitering munition** which can strike enemy targets with precision.
* It has been designed **and developed by Economics Explosives Ltd (EEL**), a 100 per cent subsidiary of Solar Industries Nagpur, **in association with Z-Motion, Bangalore.**
* It has an **indigenous content of more than 75 per cent**.
* **Features**:
  + It can neutralize any hostile threat with **GPS-enabled precision strikes with an accuracy of 2 m**.
  + It has an **endurance of 60 min** with a **man-in-loop range of 15 km** and an **autonomous mode range of 30 km**.
  + In addition to day-night surveillance cameras, **it is equipped with fragmenting warhead to defeat soft-skin targets**.
  + In case a target is not detected or if the mission is aborted, the loiter **munition can be called back and made a soft landing** with a parachute recovery mechanism, **enabling it to be reused multiple times.**
* **Why is it called a loitering munition?**
  + The Nagastra can **loiter around in the air and strike when the target reaches the spot.**
  + It hits in a **kamikaze mode (suicidal attack), destroying the target and itself.**